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		Application Number	10/650,887
		Filing Date	August 28, 2003
		First Named Inventor	Timothy Donovan et al.
		Art Unit	2617
		Examiner Name	Marivelisse Santiago Cordero
Total Number of Pages in This Submission		Attorney Docket Number	MP0306

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## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Harness, Dickey & Pierce, P.L.C.		
Signature			
Printed name	Michael D. Wiggins		
Date	July 11, 2008	Reg. No.	34,754

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Firm Name	Harness, Dickey & Pierce, P.L.C.		
Signature			
Printed name	Michael D. Wiggin		
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MP0306

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appeal No. \_\_\_\_\_

Application No.: 10/650,887

Filing Date: August 28, 2003

Appellant: Timothy Donovan et al.

Conf. No.: 8722

Group Art Unit: 2617

Examiner: Marivelisse Santiago-Cordero

Title: POWER SAVING APPARATUS AND METHOD

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**REPLY BRIEF TO EXAMINER'S ANSWER**

Mail Stop Appeal Brief-Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

July 11, 2008

Sir:

This reply brief is a reply to the Examiner's Answer mailed May 14, 2008, in the appeal from the decision of the Patent Examiner dated May 21, 2007, rejecting claims 1-92, 94-104, 106-115, 117-122, 134, 136-155, 157-167, 169-178, 180-185, 197, 199-238, and 253-258.

## ARGUMENTS

### Rejection of Claim 134-153, 197-216, and 246-258 under 35 U.S.C. § 112, Second Paragraph

Claim 134 recites a wireless device that includes first and second “wireless” circuits. For example, as shown in an exemplary embodiment in FIG. 3 of the present application, a wireless network communications device 48 includes a plurality of circuits, including, but not limited to, a baseband processor (BBP) 62 and a radio frequency (RF) transceiver 52. The BBP 62 and the RF transceiver are “wireless” circuits by virtue of being circuits of a wireless device (i.e. “wireless circuits” refers to “circuits in a wireless device”). In other words, each of the plurality of circuits of the wireless device 48 is properly called a wireless circuit because each circuit is in a wireless device.

The Examiner continues to allege that this intended interpretation is improper because “a person looking at the drawings and reading the claims may possibly be confused and may not understand that the term “wireless circuits,” as intended by Appellants, is meant as any circuit (e.g., wired) of a wireless device,” and the term “gives the notion that the circuits have no wires or that the circuits receive/transmit wirelessly.” (See 54, Lines 16-20 of the Examiner’s Answer).

Appellants respectfully disagree and submit that the Examiner’s position that one skilled in the art would interpret a “wireless circuit,” in the context of a wireless communication device, as a circuit that “has no wires” is unreasonable. As described throughout the drawings and specification, it is clear from the claims that the term “wireless circuit” refers to the various circuits in a wireless communication device.

Here Again, Appellants note that the test for definiteness is whether “those skilled in the art would understand what is claimed when the claim is read in light of the specification.” MPEP § 2173.02. One skilled in the art reading claim 134 would understand that the wireless circuits referred to in the claim refer to, for example, the circuits of the wireless device 48 as shown in FIG. 3. Appellants note that one of the wireless circuits may include, for example, the RF transceiver 52. Here again, while the RF transceiver 52 communicates wirelessly, the RF transceiver 52 includes wires. Similarly, while other circuits in the wireless device 48 do not directly transmit and/or

receive wirelessly, the circuits are at least indirectly involved in wireless communication by virtue of being circuits of the wireless device 48 (e.g., the baseband processor (BBP) 62). Appellants respectfully submit that any person skilled in the art would understand that the first and second wireless circuits, which are recited as being comprised in the wireless device, refer to circuits of the wireless device 48 such as the RF transceiver 52 and the BBP 62.

In view of the foregoing, Appellants respectfully submit that claims 134-153, 197-216, and 246-258 are definite.

**Distinctions Regarding Independent Claims 1, 18, 31, 48, 61, 78, 134, 145, 197, 208, and 253**

With respect to claim 1, Appellants respectfully submit that the combination of Jokinen with Karaoguz and Aoyama is improper. At a minimum, the combination of Jokinen with Aoyama is improper.

Appellants' claim 1 recites, amongst other things, a first voltage regulator that regulates supply voltage during the active mode and that is powered down during the low power mode, and a **second voltage regulator that dissipates less power than said first voltage regulator** and that regulates supply voltage during the low power mode. As shown in an exemplary embodiment in FIG. 3 of the present application, a wireless device includes voltage regulators 68 and 70 (i.e. a first voltage regulator) and a low power voltage regulator 98. The voltage regulators 68 and 70 are **powered down** during a low power mode. In contrast, the low power voltage regulator 98, which dissipates less power than the other voltage regulators, is selected to supply voltage during the low power mode.

In other words, claim 1 specifically recites that a first (high power) voltage regulator is on in the active mode and off during the low power mode, and that a second (low power) voltage regulator regulates supply voltage during the low power mode.

Appellants previously noted that Jokinen relies on the act of powering down the other regulators to reduce power consumption, **rather than switching to a second, low power regulator**. In response, the Examiner alleges that the limitation of

"switching to" is not recited in the claims. Appellants note that while the phrase "switching to" is not explicitly recited in the claims, the claims do recite powering down one regulator and regulating with the other regulator during a low power mode (i.e., switching from one regulator to another). Accordingly, neither Jokinen nor any other cited prior art reference discloses powering off one regulator while regulating power with another, low power regulator in a low power mode. Instead, Jokinen relies on different combinations of a plurality of voltage regulators, none of which is a higher power regulator that is powered off.

Further, the Examiner alleges that Aoyama suggests modifying "the already provided second voltage regulator of Jokinen to dissipate less power as suggested by Aoyama." (See Page 58, Lines 18-21 of the Examiner's Answer). Here again, Appellants respectfully note that Jokinen already "dissipates less power" by powering off various voltage regulators.

Further, Appellants respectfully note that the Examiner still fails to provide any reference that discloses **a MAC device that selects said first voltage regulator during the active mode and said second voltage regulator during the low power mode**. Instead, the Examiner alleges that certain devices are "notoriously well known in the art...for their configuration in wireless Ethernet networks and that MAC devices are representative of Ethernet network devices," and further relies on a MAC disclosed in a reference (Karaoguz) that does not perform any functions related to selecting between first and second voltage regulators. Appellants respectfully submit that a mere alleged **presence** of a MAC device is not an explicit or implicit disclosure that the **MAC device specifically, is selecting between the first and second voltage regulators.**

In response, the Examiner reasserts that "modifying the controller of Jokinen...to be fairly characterized as a MAC as suggested by Karaoguz would have been obvious to one of ordinary skill in this art at the time of the invention by Appellants for the advantages of being widely available, cost-effective, and is the best engineering design choice." (See Page 6, Lines 4-9 of the Office Action). Appellants respectfully disagree because the Examiner appears to be relying on the mere existence of a MAC device in the secondary reference as motivation for modifying the controller of Jokinen.

Appellants respectfully submit that claim 1, as well as its dependent claims,

should be allowable for at least the above reasons. Claims 18, 31, 48, 61, 78, 134, 145, 177, 197, 208, 233, and 253, as well as their corresponding dependent claims, should be allowable for at least similar reasons.

### **Distinctions Regarding Independent Claims 134 and 197**

With respect to claim 134, Appellants respectfully submit that the combination of Kohlschmidt with Jokinen and Aoyama is improper. At a minimum, the combination of Jokinen with Aoyama is improper for the same reasons described above with respect to claim 1. Appellants respectfully submit that claim 134, as well as its dependent claims, should be allowable for at least the above reasons. Claim 197, as well as its dependent claims, should be allowable for at least similar reasons.

### **Distinctions Regarding Independent Claims 145, 208, and 253**

With respect to claim 145, Appellants respectfully submit that the combination of Kohlschmidt with Jokinen and Aoyama is improper. At a minimum, the combination of Jokinen with Aoyama is improper for the same reasons described above with respect to claim 1. Appellants respectfully submit that claim 145, as well as its dependent claims, should be allowable for at least the above reasons. Claims 208 and 253, as well as their corresponding dependent claims, should be allowable for at least similar reasons.

### **Distinctions Regarding Independent Claims 26, 56, and 86**

With respect to claim 26, Jokinen, either singly or in combination with Karaoguz and Aoyama, fails to show, teach, or suggest at least a **baseband processor comprising a first voltage regulator** that regulates supply voltage during the active mode and that is powered down during the low power mode and a **second voltage regulator** that dissipates less power than said first voltage regulator.

None of the cited prior art references discloses this limitation. The Examiner acknowledges that Jokinen fails to specifically disclose a BBP. Instead, the Examiner relies on Karaoguz to disclose “a baseband processor...with active and low power modes.” Appellants respectfully note that **Karaoguz still fails to disclose that the alleged BBP includes the first and second voltage regulators** as Appellants claims recite.

In response, the Examiner continues to allege that Jokinen itself discloses a processor that includes first and second voltage regulators. (See Page 75, Lines 16-17 of the Examiner’s Answer). Appellants respectfully disagree. For example, the Examiner relies on Column 1, Lines 13-17 and Column 4, Lines 40-45 of Jokinen to disclose a processor that includes first and second voltage regulators. Appellants respectfully submit that neither these cited portions nor any other portion of Jokinen discloses that **a processor includes the voltage regulators**. For example, the first cited portion states that battery power devices include “mobile telephones, portable computers, portable telefax terminals, portable copying machines, portable oscilloscopes, portable hospital equipment, and so on.” Similarly, the second cited portion states that “the invention is applicable to electronic devices of different types.” Neither portion discloses, specifically, that **a processor includes the voltage regulators**.

Instead, the Examiner alleges that “any apparatus that processes a signal is fairly characterized as a processor.” (See Page 75, Lines 16-19 of the Examiner’s Answer). Appellants respectfully disagree and submit that the term “processor,” as described in the specification and as known to one skilled in the art, refers to a specific component that includes, for example, a combination of logic, memory, and digital functions. Accordingly, the Examiner’s interpretation of any device that merely “processes a signal” as a processor is unreasonable.

In view of the foregoing, Appellants respectfully submit that the Examiner fails to provide any reference that discloses that the BBP includes the first and second voltage regulators. Claim 26, as well as its dependent claims, should be allowable for at least the above reasons. Claims 56 and 86, as well as their corresponding dependent claims, should be allowable for at least similar reasons.

### **Distinctions Regarding Independent Claims 91, 154, and 217**

With respect to claim 91, Kohlschmidt, either singly or in combination with Amos, fails to show, teach, or suggest at least a MAC including a shutdown module that shuts down a BBP and an RF transceiver in a low power mode.

The Examiner acknowledges that Kohlschmidt fails to specifically disclose this limitation and instead relies on Amos, citing Column 3, Lines 3-8 and 19-24 of Amos. Appellants respectfully note that these cited portions of Amos disclose that the MAC selectively enables oscillators that provide clocks **to the MAC**. In other words, the alleged shutdown module in the MAC of Amos does not shutdown a BBP and an RF transceiver as claim 91 recites, but instead lowers an operating frequency of the MAC itself.

As such, the alleged shutdown module included in the MAC 102 of Amos is not analogous to the shutdown module of Appellants claim 91, which recites that the shutdown module shuts down the BBP and the RF transceiver. As best understood by Appellants, Amos is absent of any teaching or suggestion that the MAC 102 includes a shutdown module that shuts down anything other than itself.

Appellants respectfully submit that claim 91, as well its dependent claims, should be allowable for at least the above reasons. Claims 154 and 217, as well as their corresponding dependent claims, should be allowable for at least similar reasons.

### **Distinctions Regarding Independent Claims 103, 166, and 226**

With respect to claim 103, Kohlschmidt, either singly or in combination with Amos, fails to show, teach, or suggest at least a MAC including a shutdown module that shuts down a BBP and an RF transceiver in a low power mode. As best understood by Appellants, Amos is absent of any teaching or suggestion that the MAC 102 includes a shutdown module that shuts down anything other than itself. Appellants respectfully submit that claim 103, as well its dependent claims, should be allowable for at least the

above reasons. Claims 166 and 226, as well as their corresponding dependent claims, should be allowable for at least similar reasons.

### **Distinctions Regarding Independent Claims 114, 177, and 233**

With respect to claim 114, Kohlschmidt, either singly or in combination with Amos, fails to show, teach, or suggest at least a MAC including a shutdown module that shuts down a first oscillator and a first voltage supply in a low power mode. As best understood by Appellants, Amos is absent of any teaching or suggestion that the MAC 102 includes a shutdown module that shuts down anything other than itself. Appellants respectfully submit that claim 114, as well its dependent claims, should be allowable for at least the above reasons. Claims 177 and 233, as well as their corresponding dependent claims, should be allowable for at least similar reasons.

**CONCLUSION**

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Damian M. Aquino, Reg. No. 54,964, at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By:

  
Michael D. Wiggins  
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Damian M. Aquino  
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MDW/DMA/rao

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